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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,100	10/29/2003	Joel Jameson	4000735.0023	7104
34755	7590	08/11/2004	EXAMINER	
ADAM K. SACHAROFF MUCH SHELIST FREED DENENBERG AMENT&RUBENSTEIN,PC 191 N. WACKER DRIVE SUITE 1800 CHICAGO, IL 60606-1615			BOYCE, ANDRE D	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/696,100

**Applicant(s)**

JAMESON, JOEL

**Examiner**

Andre Boyce

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1 and 2 have been examined.

#### ***Specification***

2. The disclosure is objected to because of the following informalities: The related application information must be updated. Appropriate correction is required.

#### ***Claim Objections***

3. Claims 1 and 2 are objected to because of the following informalities: The claims must be sentences, and should not include bullet points, acronyms (e.g., EFD's), and italicized words. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1 and 2 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature,

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natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter.

For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case the independent claims 1 and 2 only recite abstract ideas. The recited steps of obtaining at least two weighting EFD's, accessing data contained in a foundational table, determining bin weights, accepting an ac-distribution, etc. does not involve, use, or advance the technological arts (i.e., computer, processor, electronically, etc.), since the steps could be performed using pencil and paper.

As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble. In the present case, none of the recited steps are directed to anything in the technological arts as explained above with the exception of the recitation in the preamble that the method is "computer-implemented". Looking at the claim as a whole, nothing the body of the claim recites any structure or functionality to suggest that a computer performs the recited steps. Therefore, the preamble is taken to merely recite a field of use.

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Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case the claimed invention determines bin weights and arranges a transfer of consideration, thereby producing a useful, concrete, and tangible result, but not within the technological arts as explained above.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Horrigan et al (USPN 6,493,682).

As per claim 1, Horrigan et al disclose a computer-implemented method for generating scenarios (multiple optimizations using different scenarios, column 6, lines 62-65) for subsequent use comprising the following steps: Obtaining at least two Weighting EFDS (i.e., forecasts in the form of distributions, wherein the joint distribution is between returns and order execution rates, column 4, lines 31-33); Accessing data contained in a Foundational Table (i.e., NxN diagonal matrix, where the investor has N securities to transact, column 11, lines 8-10 and 27-31);

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Determining bin weights that resolve non-convergence conflicts between two said Weighting EFDS and said accessed data contained in said Foundational Table (i.e., dependent variables segregated into bins, with the probability of ending up in one of the bins is estimated, column 20, lines 32-33); Using said bin weights to determine a first at least one weight for a first at least one row of said Foundational Table; Using said bin weights to determine a second at least one weight for a second at least one row of said Foundational Table (i.e., dependent variable may take on 10 values, ranging from 1 to 10, where a 1 corresponds to 0% filled, 2 corresponds to a fill rate  $\geq 10\%$ , etc., column 20, lines 33-38); Providing said first at least one weight, said second at least one weight, said first at least one row of said Foundational Table, said second at least one row of said Foundational Table as at least two scenarios in a form suitable for an entity that subsequently uses said at least two scenarios (i.e., the scenario may then be estimated using a generalized maximum likelihood estimation technique, column 20, lines 38-40).

As per claim 2, Horrigan et al disclose a computer-implemented method to share risk between at least two parties (i.e., determination of whether or not to place an order using a risk averse investor's expected utility maximization, column 4, lines 54-57) comprising the following steps: Accepting an ac-Distribution (i.e., joint distribution, column 4, lines 31-33), comprising at least two bins, from each of said at least two parties (i.e., dependent variables segregated into bins, with the probability of ending up in one of the bins is estimated, column 20, lines 32-33); Accepting a contract quantity from each of said at least two parties (i.e., the user(s) identifies the

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securities and amounts they want to trade, column 3, lines 48-52); Using said accepted ac-Distributions (i.e., joint distributions) and said accepted contract quantities (i.e., amount to trade) to determine a PayoffMatrix comprising at least two rows and at least two columns (i.e., NxN diagonal matrix, where the investor has N securities to transact, column 11, lines 8-10 and 27-31); Determining which of said at least two bins subsequently manifests (i.e., probability of ending up in a bin); Arranging a transfer of consideration based upon said PayoffMatrix amongst said at least two parties (i.e., determining the scenario using a generalized maximum likelihood estimation technique, column 20, lines 38-40).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Dembo (USPN 5148365) discloses optimally allocating available resources in a physical system defined by a mathematical model.

-Lange et al (US 2003/0115128) disclose a system for replicating derivative strategies.

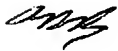
-Lange (US 2002/0147670) discloses a system for conducting demand based trading.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



adb



TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600